

Volunteer goes extra mile to share the space program with students

When Norm Chaffee says he'll go the extra mile – he sure means it. Chaffee, an education outreach specialist in the Public Affairs Office, recently went more than 800 extra miles to help create "Space Night" at a school in Mexico City.

"Everyone I've met at NASA is always willing to go out of their way to help," said Brenda Farkas, a sixth grade teacher at the American School of Mexico City. "But to me, Norm is invaluable. He is 'living history' which is something I try to really focus on with my students. And I could not have done this event without his help and support."

This is the second time Chaffee has gone south of the border to help schoolchildren. It began when Farkas attended one of Chaffee's JSC teacher workshops for the Department of State International Schools educators in 1998.

She contacted Chaffee after the event and told him she wanted to organize a Space Week at the American School of Mexico City, where she teaches, and she asked if he would consider participating. Since his involvement would be on a voluntary basis, Chaffee, a part-time employee with Indyn, Inc., only asked that they reimburse his expenses and he would be glad to participate.

That was in 1999 and the event was a huge hit with students. Chaffee went back this year to contribute to Space Week again, and had a marvelous, if exhausting, time.

From May 10 to May 16, Chaffee visited with more than 500 students. The first day, he spoke to 150 high school science and math students during the day and then participated in Space Night with 300 sixth graders that evening. Space Night began with a dinner and

presentations and followed with hands-on space activities until 1 a.m.

"The students were so enthused to participate in the varied activities we provided – from assembling a mock space station in the school's swimming pool to seeing a demonstration rocket launch! There's no doubt they were all space fans," said Chaffee.

"You could see the glint in their eye and could tell they were really jazzed up to be thinking about the future and all of the possibilities."

The event had special meaning for Olivas, who is a Mexican-American and recalls the impact space can have on students. "I remember growing up in El Paso, and we didn't have a lot of

Chaffee's unique ability to interact with the students, coupled with his expertise from 35 years as a JSC engineer, works magic, inciting the students and warming their interest in science and careers in space.

"They want to know everything from chemistry to Mars," said Chaffee. "It's a neat time. They are terribly excited and everyone's attention is captured."



Norm Chaffee's passion for volunteerism takes him to places near and far. Shown here, Chaffee provides students with a guided tour at JSC's Rocket Park. Other volunteer activities have taken the former NASA engineer as far as Mexico to share the stories of the early-space era.

exposure to the space program the way the community does here around JSC. As a child, when the teacher spoke about space, we were at the edge of our seat. When you go to other parts of the world, they're still amazed by the space program – to them it still is 'rocket science.'"

Various other activities continued throughout the evening, ranging from demonstrations on gyroscopic forces to the principles of propulsion, but a highlight of the evening was the "Ask the Expert" area where students were able to ask Chaffee space-related questions.

It's a feeling that lasts throughout the week. The days are filled with visiting more classes, from kindergartners to advanced high school science, math and physics classes.

For Chaffee, the experience gives him a chance to "give this generation of students the sense of excitement and challenge that I have felt throughout [my] long NASA career." So while some might say Chaffee takes his title as outreach specialist a little too literally, Chaffee says he'll welcome the chance to go those extra miles, anytime. ■

Not on file: Engineer Highlight

Title:
Increment Engineer, Increment One.

Time at JSC: 14 years.

Education:
Texas A&M University, B.S., Aerospace Engineering (*Cum Laude*), University of Houston, M.I.E. Master's of Industrial Engineering and J.D., Doctorate of Jurisprudence (*Cum Laude*).

Favorite book and movie:
The Hobbit and *The Hunt for Red October*.

Favorite music:
Rock, dance, New Age.

When away from JSC:
Spending time with my family and golfing.

What you like about NASA... and your job at JSC:
The people and the fact that you are participating in making history.

Background: When deciding how to live your life, start with your obituary and work backward. This philosophy of living is certainly an accurate description of how one man was inspired to dedicate his career to space exploration.

"When you begin to think about your life, eventually you realize you want to leave a legacy," said Ted Ro. "On my deathbed, I want to look back and see that I made a difference in this world."

With that in mind, Ro has laid out a plan. He began work at JSC as a co-op, completed a couple (yes, a couple) post-graduate degrees and now commits himself to the pursuit of supporting a human mission to Mars.



NASA JSC Photo JSC-2000e18796 by Bill Stafford

Name: **Theodore (Ted) Ro**

"That is going to be a major milestone for humans, similar to landing on the moon, and I want to be a part of it," added Ro.

Ro has known he wanted to work in the space industry since he was a youngster. According to his mother, even as a kindergartner, he wanted to be an astronaut.

"I think movies are really what kicked off my interest as a teenager," said Ro.

"*Star Wars* and *Close Encounters of the Third Kind* were major influences. That is when I knew I wanted to be an aerospace engineer."

Ro co-oped in MOD's Facilities Division and worked in project management. Deciding that he needed to hone his technical skills, Ro transitioned to the Flight Design and Dynamics Division where he worked on trajectory design and guidance algorithm development.

"That has been the most fulfilling job I have had yet at NASA," said Ro of his more than two years in that role. "It's very technical and uses every aspect of the engineering degree. It was really fulfilling because it embodied all that NASA represents – working there represented the cutting edge of technology."

While there, Ro wrote two technical papers: one on developing an aerocapture guidance algorithm and the other on optimizing aerocapture trajectories.

Ro recently transitioned to the ISS Program Office where he feels he can make further contributions to NASA's pursuit of long-duration human spaceflight.

"This is an extremely exciting time to be working on the International Space Station," said Ro. "It is out of planning and moving into assembly and operations."

Ro is also looking forward to the opportunities to visit other countries, such as Russia, with the Increment One team.

"I've always been aware of the multicultural reality of this world," said Ro, whose parents are Korean. "That is one of the benefits about joining the ISS program – having the opportunity to learn and understand the cultures and languages of other countries."

So although his long-term goal is to help humans go to Mars, for now Ro is content to concentrate on travel on our own planet before pursuing other worlds. ■